

### IN THE CLAIMS

Please amend the claims as follows:

1. (Canceled)
2. (Currently Amended) ~~The method of claim 1, wherein the translating further includes, A~~  
method comprising:  
translating a virtual memory address into a physical memory address, the translating  
including,  
creating a first page size tag;  
choosing an entry in a translation lookaside buffer, wherein the entry stores a  
second page size tag and a page frame number;  
comparing the first page size tag with the second page size tag; and  
if the first page size tag is equal to the second page size tag, using the page frame  
number to form the physical memory address, and  
if the first page size tag is greater than the second page size tag, generating a miss  
indication.
3. (Currently Amended) The method of claim ~~[[1]]~~ 2, wherein the translation lookaside  
buffer is N-way set associative.
4. (Currently Amended) The method of claim ~~[[1]]~~ 2, wherein the translation lookaside  
buffer is a second level translation lookaside buffer.
5. (Currently Amended) The method of claim ~~[[1]]~~ 2, wherein the page size tag is  
represented in a 4-bit string.

6. (Original) A method comprising:  
searching a translation lookaside buffer (TLB) to resolve a virtual memory address,  
wherein the TLB includes a plurality of entries, and wherein one or more of the entries include a TLB page size tag and a page frame number, the searching including,  
comparing a first page size tag with the TLB page size tag of an entry in the TLB,  
wherein the first page size tag is selected from a search order list; and  
after determining the first page size tag is less than or equal to the TLB page size tag, writing the page frame number to a predetermined memory location;  
after determining the page size tag is greater than to the TLB page size comparing a second page size tag with the TLB page size tag of the entry, wherein the second page size tag is selected from the search order list.
7. (Original) The method of claim 6, wherein the translating further includes, after determining the page size tag is greater than the TLB page size tag, generating a miss indication.
8. (Original) The method of claim 6, wherein the translation lookaside buffer is N-way set associative.
9. (Original) The method of claim 6, wherein the translation lookaside buffer is a second level translation lookaside buffer.
10. (Original) The method of claim 6, wherein the page size tag is represented in a 4-bit string.
11. (Canceled)
12. (Canceled)
13. (Currently Amended) ~~The apparatus of claim 11,~~ An apparatus comprising:  
a translation lookaside buffer (TLB), the TLB including a plurality of entries, the

entries including,

a TLB page size tag field; and

a page frame number field;

a search list unit to transmit a page size tag based on a search list, wherein the search list unit is updated according to a least recently used policy;

a selection logic to select an entry of the plurality of entries based on the page size tag; and

a comparator to compare the page size tag with the contents of the TLB page size tag field of the selected entry.

14. (Currently Amended) The apparatus of claim ~~[[11]]~~ 13, wherein the comparator generates a hit indication if the page size tag matches the contents of the TLB page size tag field.

15. (Currently Amended) ~~The apparatus of claim 11;~~ An apparatus comprising:  
a translation lookaside buffer (TLB), the TLB including a plurality of entries, the  
entries including,

a TLB page size tag field; and

a page frame number field;

a search list unit to transmit a page size tag based on a search list;

a selection logic to select an entry of the plurality of entries based on the page size tag; and

a comparator to compare the page size tag with the contents of the TLB page size tag field of the selected entry, wherein the comparator generates a miss indication if the page size tag is greater than the contents of the TLB page size tag field.

16 - 20 (Canceled)

21. (New) The apparatus of claim 13, wherein the TLB is a second-level N-way set associative TLB.

22. (New) The apparatus of claim 15, wherein the TLB is a second-level N-way set associative TLB.

23. (New) The apparatus of claim 15, wherein the comparator generates a hit indication if the page size tag matches the contents of the TLB page size tag field.